

ABSTRACT

A lower cost range-finding image sensor based upon measurement of reflection time of light with reduced fabrication processes compared to standard CMOS manufacturing procedures. An oxide film is formed on a silicon substrate, and two photo-gate electrodes for charge-transfer are provided on the oxide film. Floating diffusion layers for taking charges out from a photodetector layer are provided at the ends of the oxide film, and on the outside thereof are provided a gate electrode for resetting and a diffusion layer for providing a reset voltage.